

### **ABSTRACT OF THE DISCLOSURE**

A medical device has a cuff adapted to be positioned in the trachea of a subject with a patient tube, and a first tube having a distal end coupled to the cuff and a proximal end communicable with the surroundings. More effective and simpler sample taking and/or dosing of medicament is achieved by a second tube that is coupled with a distal end to the cuff and communicable with the surroundings via a proximal end, together with a pumping device that is connected to the proximal end of the first tube and to the proximal end of the second tube in order to circulate a fluid through the cuff. The cuff has a membrane that is permeable to a specific substance, the membrane being disposed to allow transfer of the specific substance between the interior and the exterior of the cuff.

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